

Palliative Care Consultant GEMS™

General Patient and Symptom Assessment

Nausea, vomiting, dyspnea, secretions, and agitation are just a few of the signs and symptoms experienced at the end of life. Palliation of these symptoms, using non-pharmacological and/or pharmacological interventions, is the goal of hospice care. Selection of an appropriate non-pharmacological or pharmacological intervention is dependent on patient and symptom assessment. This guide serves as a foundation for the assessment of the most common signs and symptoms experienced at the end of life.

Step 1

Complete general patient assessment

Vital Signs	Support System	Prognostic Assessment	Medications
<ul style="list-style-type: none">Body temperaturePulse rate, rhythm, and strengthRespiratory rate and rhythmBlood pressureOxygen saturation	<ul style="list-style-type: none">Current residenceResidence concernsPrimary caregiverFrequency of caregiver assistanceCaregiver concerns	<ul style="list-style-type: none">PPS or Karnofsky ScoreAbility to perform ADLsOral intakeSwallowing statusLevel of consciousness	<ul style="list-style-type: none">Current medication listNew medicationsDiscontinued medicationsAllergies, medication interactions, duplication of therapy, clinical concerns

Step 2

Complete general symptom assessment using BOLD CARTTS

Baseline	<ul style="list-style-type: none">What is normal for the individual?
Onset	<ul style="list-style-type: none">When did the symptom begin?How often have you experienced the symptom in the last 24 hours?
Location / Radiation	<ul style="list-style-type: none">Is the symptom located in one specific area? Has the location of the symptom changed over time?Does the symptom radiate or spread to other areas of the body?
Duration	<ul style="list-style-type: none">How long has the symptom lasted?Has the symptom occurred in the past? What was effective in managing the symptom in the past?
Character	<ul style="list-style-type: none">How would you describe the symptom? Is the symptom getting better, worse, or staying the same?If describing a bodily fluid, what is the color, volume, odor, or consistency?
Aggravating Factors	<ul style="list-style-type: none">What makes the symptom feel worse?What brings the symptom on?
Relieving Factors	<ul style="list-style-type: none">What makes the symptom better?
Timing	<ul style="list-style-type: none">When does the symptom occur?If symptom is chronic in nature, is something new today that makes symptom palliation important?
Treatments	<ul style="list-style-type: none">What non-pharmacological and/or pharmacological treatments are currently being used?What non-pharmacological and/or pharmacological treatments have been trialed in the past?What is the response to these treatments – effective or ineffective?
Severity	<ul style="list-style-type: none">On a 0 – 10 scale, with 0 being none and 10 being the worst possible, how would you rate this symptom?

Step 3

Observe for dyspnea in the non-verbal patient using the Respiratory Distress Observation Scale¹⁻³

Respiratory Distress Observation Scale ¹⁻³				
Variable	0 Points	1 Point	2 Points	Total
Heart Rate (per minute)	< 90 beats	90-109 beats	≥ 110 beats	
Respiratory Rate (per minute)	≤ 18 breaths	19-30 breaths	> 30 breaths	
Restlessness (non-purposeful movements)	None	Occasional, slight movements	Frequent movements	
Paradoxical Breathing Pattern (abdomen moves in on inspiration)	None		Present	
Accessory Muscle Use (rise in clavicle during inspiration)	None	Slight rise	Pronounced rise	
Grunting at End Expiration (guttural sound)	None		Present	
Nasal Flaring (involuntary movement of nares)	None		Present	
Look of Fear	None		Eyes wide open, tense facial muscles, furrowed brow, open mouth, teeth together	
Total				
<ul style="list-style-type: none"> ▪ This scale is used to make behavioral observations of dyspnea when the patient is unable to verbalize discomfort. This tool is intended for use with adults. ▪ Do not use this tool for children or any adult with a “lock-in” state, paralysis of muscle groups from neuromuscular disease, or paralysis of muscle groups from use of a neuromuscular blocking agent. ▪ Auscultate heart and respiratory rate, if necessary. ▪ A score of 3 or greater indicates respiratory distress is present and should be managed. A score of 16 indicates the highest level of respiratory distress. 				

Step 4

Identify Underlying Cause of the Primary Symptom

Take note! Some questions are directed to the patient or caregiver; other questions are directed to the clinician. There may be more than one cause of the symptom – evaluate for all causes.

Primary Symptom: Agitation⁴⁻⁸

- Suspect agitation when the patient demonstrates restlessness, irritability, fidgeting, or verbal or physical aggression.
- Potential underlying causes of agitation include delirium, known cognitive impairment (e.g., brain injury, developmental disability, dementia), intoxication or withdrawal, mania or psychosis caused by a known psychiatric disorder, anxiety/depression, an adverse effect from a medication.

Ask:

- Does the patient have an acute change in the level of consciousness with fluctuations in status throughout the day?
 - Does the patient have trouble directing, sustaining, or shifting attention?
 - Does the patient have a language impairment or problems naming?
 - Does the patient have any risk factors for delirium, including advanced age, limited mobility, severe illness, cognitive impairment, hearing loss, poor vision, polypharmacy, social isolation, renal failure, or impending death?
- If yes, suspect **delirium** is the cause of the agitation.
 - If no, evaluate for other causes.

Ask:

- Does the patient have agitation secondary to known cognitive impairment, such as a brain injury, developmental disability, or dementia?
 - Have you ruled out an underlying medical condition, unmanaged symptom, or unmet need as the cause of the symptom?
 - Underlying medical conditions may include a urinary tract infection.
 - Unmanaged signs or symptoms may include pain, anxiety, urinary retention, or constipation.
 - Unmet needs may include hunger or thirst.
- If yes, suspect **known cognitive impairment** is the cause of the agitation.
 - If an underlying medical condition, unmanaged symptom, or unmet is identified, manage accordingly. Otherwise, evaluate for other causes.

Ask:

- Is the patient currently under the influence of alcohol or illicit drugs?
 - Has the patient recently stopped using alcohol or an illicit drug?
 - Is the patient taking more of any medication than prescribed?
 - Has the patient stopped taking any medications that may cause withdrawal?
- If yes, suspect **intoxication or withdrawal** is the cause of the agitation.
 - If no, evaluate for other causes.

Ask:

- Does the patient have a known psychiatric disorder, such as schizophrenia or bipolar disorder?
 - Does the patient have symptoms of psychosis, such as delusions, hallucinations, paranoia, disorganized speech or behavior, withdrawn mood or lack of emotions, other changes in personality, or decreased motivation?
 - Does the patient have symptoms of mania, such as changes in thought patterns, flight of ideas, or such changes in energy?
- If yes, suspect **mania or psychosis caused by a known psychiatric disorder** is the cause of the agitation.
 - If no, evaluate for other causes.

Ask:

- Does the patient have a history of depression or anxiety?
 - Does the patient have symptoms of anxiety, such as intense worry/dread, inability to concentrate, insomnia, nausea, or palpitations?
 - Does the patient have symptoms of depression, such as sleep disturbance, loss of interest in activities, fatigue, poor appetite, or suicidal thoughts?
- If yes, suspect **anxiety or depression** is the cause of the agitation.
 - If no, evaluate for other causes.

Ask:

- Is the patient taking an antipsychotic medication? If so, is the patient demonstrating akathisia (a sensation of restlessness or need to move)?
 - Is the patient taking a medication known to cause serotonin syndrome? If so, is the patient demonstrating symptoms of serotonin syndrome, such as diarrhea, confusion, increased heart rate, hypertension, or seizures?
 - Is the patient taking any medication known to cause agitation, such as a fluoroquinolone or anticholinergic medication?
- If yes, suspect an **adverse effect from a medication** is the cause of the agitation.
 - If no, evaluate for other causes.

If none of the above are identified as a potential cause of the agitation, describe the symptom using BOLD CARTTS and treat the symptom empirically using non-pharmacological interventions prior to pharmacological interventions.

Primary Symptom: Constipation⁵

- Suspect constipation when the patient complains of hard stools, straining with defecation, a sensation of incomplete evacuation, fewer than three bowel movements per week, and/or need to manually remove of stool from the rectum.
 - Potential underlying causes of constipation include bowel obstruction, dehydration/reduced PO intake (e.g., insufficient food, fluids, or fiber), opioid-induced constipation, a side effect of a non-opioid medication, environmental concerns.
- NOTE: *There is a high likelihood that multiple underlying causes of constipation are present.*

Ask:

- Does the patient have any risk factors for bowel obstruction, such as a history of cancer (especially colorectal and ovarian cancer), previous abdominal surgery, inguinal or umbilical hernia, diverticulitis, or Crohn disease?
- Does the patient have any general symptoms of a bowel obstruction, including abdominal pain, nausea, vomiting, constipation, obstipation, abdominal distention, hyperactive bowel sounds, or paradoxical diarrhea (leakage of stool around the impaction)?
- Does the patient have symptoms of a small bowel obstruction, including focal abdominal tenderness with palpation, intermittent, colicky pain that improves with vomiting, or vomiting that is frequent, in large volumes, and bilious?
- Does the patient have symptoms of a large bowel obstruction, including diffuse tenderness with palpation, continuous abdominal pain, or intermittent vomiting that is feculent?

- If yes, suspect **bowel obstruction** is the cause of the constipation.
- If no, evaluate for other causes.

Ask:

- Has the patient had any recent changes in oral intake (e.g., no longer eating solid foods or a decrease in the amount of fluids)?
- Is the patient taking a medication known to cause dehydration, especially in individuals who are unable to take in adequate fluids?
- Does the patient have symptoms of dehydration, such as feeling of thirst, dry mucous membranes, little to no urinary output, or increased heart rate?

- If yes, suspect **dehydration or reduced PO intake** is the cause of the constipation.
- If no, evaluate for other causes.

Ask:

- Is the patient currently taking an opioid analgesic?
- Does the patient report a bloated sensation, alternating episodes of diarrhea and constipation, fecal impaction requiring manual evacuation, or other symptoms of constipation?

- If yes, suspect **opioid induced constipation**.
- If no, evaluate for other causes.

Ask:

- Is the patient currently taking a non-opioid medication that may contribute to the development of constipation?
 - **Antacids:** calcium carbonate, aluminum hydroxide, bismuth subsalicylate
 - **Anticholinergics:** hyoscyamine, oxybutynin, tolterodine, scopolamine, glycopyrrolate, benztropine
 - **Antiemetics:** ondansetron, granisetron, promethazine, prochlorperazine
 - **Antiepileptics:** carbamazepine, lamotrigine, oxcarbazepine, phenobarbital, phenytoin, pregabalin, primidone
 - **Antihistamines:** diphenhydramine, dimenhydrinate, meclizine, hydroxyzine
 - **Antiparkinson agents:** carbidopa-levodopa, amantadine, pramipexole, ropinirole
 - **Antipsychotic drugs:** lithium, haloperidol, chlorpromazine
 - **Bile acid sequestrants:** cholestyramine, colestipol
 - **Chemotherapy:** vincristine, vinblastine, bleomycin, cytosine
 - **Iron supplements:** ferrous sulfate, ferrous gluconate
 - **NSAIDs:** ibuprofen, naproxen, meloxicam, diclofenac

- If yes, suspect constipation may be a **side effect of a non-opioid medication**.
- If no, evaluate for other causes.

Ask:

- Does the patient report environmental concerns as a hindrance to normal defecation, such as lack of privacy or inability to ambulate to the toilet?

- If yes, suspect **environmental concerns** are causing constipation.
- If no, evaluate for other causes.

If none of the above are identified as a potential cause of the constipation, describe the symptom using BOLD CARTTS and treat the symptom empirically using non-pharmacological and/or pharmacological interventions.

Primary Symptom: Dyspnea^{1-3,5}

- Suspect dyspnea in a verbal patient when the patient complains of air hunger, increased effort to breathe, chest tightness, incomplete exhalation, or a feeling of suffocation. Suspect dyspnea in a non-verbal patient when the Respiratory Distress Observation Scale score is greater than 3.
 - Potential underlying causes of dyspnea include fluid in the respiratory tract, infection, bronchospasm, and/or anxiety.
- NOTE: *Multiple underlying causes of dyspnea may be present.*

Ask:

- Does the patient have a known malignancy of the head, neck, or trachea?
- Does the patient present with gradual, unexplained, or intractable cough, wheezing, stridor, or hemoptysis?

- If yes, suspect **airway obstruction** is the cause of dyspnea.
- If no, evaluate for other causes.

Ask:

- Has the patient been exposed to a known allergen?
- Does the patient present with an urticarial rash or flushing of the skin?
- Is the patient experiencing tachycardia, hypotension, angioedema, stridor, cough, and/or wheeze?

- If yes, suspect **anaphylaxis** is the cause of dyspnea.
- If no, evaluate for other causes.

Ask:

- Does the patient have a history of anemia?
- Is the dyspnea accompanied by pale skin, cold hands and feet, dizziness, fatigue, and/or weakness?

- If yes, suspect **anemia** is the cause of dyspnea.
- If no, evaluate for other causes.

Ask:

- Does the patient have a history of anxiety, hyperventilation, or panic attacks?
- Does the patient complain of symptoms of anxiety, such as intense worry/dread, inability to concentrate, insomnia, nausea, or palpitations?

- If yes, suspect **anxiety** is the cause of dyspnea.
- If no, evaluate for other causes.

Ask:

- Does the patient have a diagnosis of liver failure or a history of ascites?
- Is the dyspnea accompanied by a distended abdomen?

- If yes, suspect **ascites** is the cause of dyspnea.
- If no, evaluate for other causes.

Ask:

- Does the patient have any CAD risk factors or a history of CAD, chest pain, orthopnea, paroxysmal nocturnal dyspnea, or dyspnea on exertion?
- Does the patient present with rales, jugular vein distention, pitting edema, weight gain, tachycardia, S3/S4 heart sounds, and/or a new murmur?

- If yes, suspect **CHF or pulmonary edema** is the cause of dyspnea.
- If no, evaluate for other causes.

Ask:

- Does the patient have a diagnosis of asthma, COPD, or any COPD risk factors, including a history of exposure to tobacco smoke, dust, or chemicals?
- Does the patient present with a barrel chest, pursed-lip breathing, wheezing, worsening sputum purulence, chest tightness, coughing, and/or wheezing?

- If yes, suspect **COPD exacerbation or asthma** is the cause of dyspnea.
- If no, evaluate for other causes.

Ask:

- Does the patient have a history of pleural effusion or any risk factors for a pleural effusion including heart failure, cirrhosis, pneumonia, or cancer in addition to chest pain, a dry nonproductive cough, and orthopnea?

- If yes, suspect **pleural effusion** is the cause of dyspnea.
- If no, evaluate for other causes.

Ask:

- Is the patient experiencing a productive cough, fever, chills, night sweats, rales, tachypnea, hypoxemia, and/or hemoptysis?

- If yes, suspect **respiratory tract infection** is the cause of dyspnea.
- If no, evaluate for other causes.

Ask:

- Is the patient experiencing acute dyspnea with pleuritic chest pain, tachypnea, tachycardia, hypoxemia?
- Does the patient have calf pain or swelling?

- If yes, suspect **pulmonary embolus** is the cause of dyspnea.
- If no, evaluate for other causes.

Ask:

- Does the patient have a history of a mucus plug?
- Does the patient complain of thick secretions or is drooling present?
- Is the patient actively dying with noisy respirations?

- If yes, suspect **secretions** are the cause of dyspnea.
- If no, evaluate for other causes.

If none of the above are identified as a potential cause of the dyspnea, describe the symptom using BOLD CARTTS and treat the symptom empirically using non-pharmacological and/or pharmacological interventions.

Primary Symptom: Nausea & Vomiting^{5,9}

- Suspect nausea when the patient complains of feeling the need to vomit with or without associated abdominal discomfort, sweating, or tachycardia. Vomiting is evidenced by the ejection of gastric contents through the mouth.
- Potential underlying causes of nausea and vomiting include constipation, bowel obstruction, gastric stasis, hyperacidity, chemotherapy-induced nausea and vomiting, radiotherapy-induced nausea and vomiting, motion or vertigo, medication side effect, gastroenteritis, anxiety, or central neurological causes (e.g., encephalitis, meningitis, head injury, mass or other cause of increased intracranial pressure, or migraine).

Ask:

- Does the patient complain of hard stools, straining with defecation, a sensation of incomplete evacuation, fewer than three bowel movements per week, and/or need to manually remove of stool from the rectum?

- If yes, suspect **constipation** is the cause of the nausea and vomiting.
- If no, evaluate for other causes.

Ask:

- Does the patient have any risk factors for bowel obstruction, such as a history of cancer (especially colorectal cancer and ovarian cancer), previous abdominal surgery, inguinal or umbilical hernia, diverticulitis, or Crohn disease?
- Does the patient have any other symptoms of a bowel obstruction, including abdominal pain or abdominal pain that precedes vomiting, constipation, obstipation, abdominal distention, hyperactive bowel sounds, or paradoxical diarrhea (leakage of stool around the impaction)?
- Does the patient have symptoms of a small bowel obstruction, including focal abdominal tenderness with palpation, intermittent, colicky pain that improves with vomiting, or vomiting that is frequent, in large volumes, and bilious?
- Does the patient have symptoms of a large bowel obstruction, including diffuse tenderness with palpation, continuous abdominal pain, or intermittent vomiting that is feculent?
- Does vomiting relieve the nausea?
- If colostomy present, has effluent changed, slowed, or stopped?

- If yes, suspect **bowel obstruction** is the cause of the nausea and vomiting.
- If no, evaluate for other causes.

Ask:

- Does the patient complain of epigastric pain, fullness, early satiety, or reflux?
- Does the patient vomit large volumes or is the vomiting projectile?
- Does vomiting relieve the nausea?
- Does the vomit contain partially digested food?
- Does the nausea or vomiting occur 1 to 4 hours after a meal?
- Does the patient have a history of diabetes mellitus or neurological disorder?

- If yes, suspect **gastric stasis** is the cause of the nausea and vomiting.
- If no, evaluate for other causes.

Ask:

- Does the patient complain of heartburn or bitter taste in their mouth?
- Does the patient have a history of gastroesophageal reflux disease (GERD) or peptic ulcer disease?

- If yes, suspect **hyperacidity** is the cause of the nausea and vomiting.
- If no, evaluate for other causes.

Ask:

- Is the patient receiving chemotherapeutic drugs used to treat cancer?
- Does the patient complain of nausea or vomiting associated with the administration of these drugs?

- If yes, suspect **chemotherapy-induced nausea and vomiting**.
- If no, evaluate for other causes.

Ask:

- Is the patient receiving radiotherapy to treat cancer?
- Does the patient complain of nausea or vomiting after receiving radiotherapy (usually asymptomatic 1 to 2 hours after treatment then suddenly develop nausea and vomiting that lasts 6 to 8 hours)?

- If yes, suspect **radiotherapy-induced nausea and vomiting**.
- If no, evaluate for other causes.

Ask:

- Does the vomiting occur with changes in position or with movement (e.g., raising the head of the bed, getting out of bed, walking, riding in a car or wheelchair)?

- If yes, suspect **motion or vertigo** is the cause of the nausea and vomiting.
- If no, evaluate for other causes.

Primary Symptom: Nausea & Vomiting *continued*^{2,9}

Ask:

- Is the patient currently taking a drug or medication can cause GI irritation, such as tetracyclines, bisphosphonates, potassium chloride, NSAIDs, or iron?
 - Is the patient currently taking a medication that has nausea and vomiting as a side effect, such as potassium chloride, NSAIDs, iron, digoxin, or opioids?
- Did the nausea or vomiting have an abrupt onset?

- If yes, suspect **medication side effect** is the cause of nausea and vomiting.
- If no, evaluate for other causes.

Ask:

- Does the patient have symptoms of gastroenteritis, such as watery diarrhea, stomach pain and cramps, low grade fever, headache, dehydration?
- Did the nausea or vomiting have an abrupt onset?

- If yes, suspect **gastro-enteritis** is the cause the nausea and vomiting.
- If no, evaluate for other causes.

Ask:

- Does the patient have a history of anxiety?
- Does the patient have symptoms of anxiety, such as intense worry/dread, inability to concentrate, insomnia, nausea, or palpitations?

- If yes, suspect **anxiety** is the cause the nausea and vomiting.
- If no, evaluate for other causes.

Ask:

- Does the nausea or vomiting occur in the early morning?
- Does the patient present with a headache, stiff neck, or focal neurological deficits?

- If yes, suspect **central neurological causes** of nausea and vomiting.
- If no, evaluate for other causes.

If none of the above are identified as a potential cause of the nausea and vomiting, describe the symptom using BOLD CARTTS and treat the symptom empirically using non-pharmacological and/or pharmacological interventions. If etiology of nausea/vomiting is unknown, pharmacological interventions should address the chemoreceptor trigger zone as the cause. Continue to monitor for signs or symptoms that may indicate the cause of the nausea and vomiting.

Primary Symptom: Secretions^{5,10}

- Suspect secretions when the patient complains of difficulty breathing, dyspnea, cough, dysphagia, drooling, perioral dermatitis, or choking sensation. Caregivers may report the need to frequently change the patient's clothing and/or clothing protector.
- Potential underlying causes of secretions include cancer, dysphagia, neurodegenerative disorders, inability to cough, infection, and/or medications.

Ask:

- Does the patient have any CAD risk factors or a history of CAD, chest pain, orthopnea, paroxysmal nocturnal dyspnea, or dyspnea on exertion?
- Does the patient present with rales, jugular vein distention, pitting edema, weight gain, tachycardia, S3/S4 heart sounds, and/or a new murmur?

- If yes, suspect **CHF or pulmonary edema** is the cause of the secretions.
- If no, evaluate for other causes.

Ask:

- Does the patient have a diagnosis of COPD or any COPD risk factors, including a history of exposure to tobacco smoke, dust, or chemicals?
- Does the patient present with a barrel chest, pursed-lip breathing, wheezing, or worsening sputum purulence?

- If yes, suspect **COPD exacerbation** is the cause of the dyspnea.
- If no, evaluate for other causes.

Ask:

- Has the patient had any recent changes in oral intake or a decrease in the amount of fluids?
- Is the patient taking a medication known to cause dehydration, especially in individuals who are unable to take in adequate fluids?
- Does the patient have symptoms of dehydration, such as feeling of thirst, dry mucous membranes, little to no urinary output, or increased heart rate?

- If yes, suspect **dehydration** is the cause of the secretions.
- If no, evaluate for other causes.

Ask:

- Does the patient report liquid entering the nose when drinking or coughing with food or fluid intake? Does the patient pocket food or fluid in the mouth?
- Has the patient just started to refuse to eat, drink, and/or take medications?

- If yes, suspect **dysphagia** is the cause of the secretions.
- If no, evaluate for other causes.

Ask:

- Is the patient experiencing any symptoms of a respiratory tract infection, such as a productive cough, fever, chills, night sweats, rales, tachypnea, hypoxemia, and/or hemoptysis?

- If yes, suspect **infection** is the cause of the secretions.
- If no, evaluate for other causes.

Ask:

- Is the patient taking a medication that can cause sialorrhea, such as pilocarpine, bethanechol, carbachol, cevimeline, carbidopa-levodopa, donepezil, galantamine, rivastigmine, haloperidol, fluphenazine, clozapine, risperidone, olanzapine, ropinirole, pyridostigmine, and/or benzodiazepines?
- Is the patient taking a medication that can cause overly thick secretions and mucus plugging, such as anticholinergics, decongestants, antihistamines, oxybutynin, tolterodine, tricyclic antidepressants (TCAs), opioids, acridinium, ipratropium, tiotropium, dicyclomine, benztropine?
- Is the patient taking any medications that can cause esophageal inflammation, such as tetracycline, doxycycline, iron, quinidine, potassium, or non-steroidal anti-inflammatory drugs?

- If yes, suspect a **medication** is the cause of the secretions.
- If no, evaluate for other causes.

Ask:

- Does the patient have a history of a neurodegenerative disorder, such as ALS?

- If yes, suspect a **neurodegenerative disorder** is the cause of the secretions.
- If no, evaluate for other causes.

Ask:

- Does the patient have any symptoms of impending death, such as a decreased level of consciousness, dysphagia of liquids, altered respiratory patterns, reduced peripheral arterial perfusion, or reduced urinary output?
- Is the patient actively dying?

- If yes, suspect **impending death** is the cause of the secretions.
- If no, evaluate for other causes.

If none of the above are identified as a potential cause of the dyspnea, describe the symptom using BOLD CARTTS and treat the symptom empirically using non-pharmacological and/or pharmacological interventions.



DISCLAIMER: Recommendations contained herein are intended to assist with determining the appropriate therapy for the patient. Responsibility for final decisions and actions related to care of specific patients shall remain the obligation of the institution, its staff, and the patient's attending physicians. Nothing in this document shall be deemed to constitute the providing of medical care or the diagnosis of any medical condition. For more information: druginformation@optum.com

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